



Presents

*International Automotive CAE Conference*

# ROAD TO VIRTUAL WORLD

*Accelerate Digital Transformation Through Simulation*



12<sup>th</sup> October 2023 | Hotel Crowne Plaza, Gurugram

Supported By



# Key Highlights



First of its kind CAE Conference in India



280+ Delegates from 70+ Organizations



12 Keynotes by experts from around the world



Panel Discussion by industry leaders



Technology Expo by Market leaders



Coverage by Top Media Houses



# Speakers & Panelists

SPEAKERS



**Dr. Tapan Sahoo**  
Executive Director - MSIL  
Chairman – SAENIS



**Dr. P. Priyadarshi**  
Group Director  
VSSC - ISRO



**Kaushik Madhavan**  
Vice President  
MarketsandMarkets



**Bruno Carré**  
CTO  
Sujan Continental



**Dr. Sujith Nair**  
Vice President  
CEAT Ltd.



**Renuka Srinivasan**  
Director  
Dassault Systemes India



**Jonathan Darab**  
Director  
GCAPS



**Enric Aramburu**  
Product Manager  
Applus IDIADA



**Syam Sunder**  
Vice President  
Hexagon India



**Andreas Kiesel**  
HOCC  
IAMT Engineering



**Anirudha Joshi**  
General Manager  
ESTECO



**Prof. R. Krishna Kumar**  
Institute Professor  
IIT Madras



**Pardeep Kathuria**  
DGM - MSIL  
Convener - RVW

PANELISTS



**Dr. Tapan Sahoo**  
Executive Director - MSIL  
Chairman – SAENIS



**Dr. P. Priyadarshi**  
Group Director  
VSSC - ISRO



**Renji Issac**  
Sr. Vice President  
CEAT Ltd.



**Dr. Nagesh Poojary**  
Business Advisor  
IPG Automotive



**Vishwanath Rao**  
Managing Director  
Altair Engineering India



**Prashant Rao**  
Director  
MathWorks India



**Mandip Tack**  
Managing Director  
IDIADA India



**Sumantra Barooah**  
Consulting Editor  
ETAuto



# Sponsors, Expositions & Media Partners

SPONSORS

PLATINUM



GOLD



SILVER



EXPOSITIONS



MEDIA



# Delegates



# Summary

## Inaugural

The Conference was inaugurated by **Dr. Tapan Sahoo** (Chairman - SAENIS and Executive Director - Maruti Suzuki). Dr. Sahoo explained the evolution of the mobility world and megatrends shaping society and mobility. He then addressed the factors that drive the global EV market, increasing consumerism and India's need for 'Safe Mobility'.

**Dr. Pankaj Priyadarshi**, Group Director of VSSC – ISRO. He mentioned how the success of the Chandrayaan-3 mission required all the trajectory mathematics undergoing extensive simulation, thus becoming the anchor for most hypotheses.

“X-in-the-loop Validation & testing for new aggregates will be leveraged by Mobility stakeholders with the overall objective of bridging the gap between virtual and real-time testing to shorten product development and time-to-market schedules,” said **Mr. Kaushik Madhavan**, VP, MarketsandMarkets.



## Keynote 1

“Megatrend shift from ICE to EV vehicles poses new challenges to NVH solutions providers who work with Rubber based Components. Simulation Tools enable consequently to define best Part Design with quick convergence and new raising Digital Technologies such as Artificial Intelligence will even make convergence faster,” said **Mr. Bruno Carré**, CTC, Sujun Contitech.

“Computational methods such as Multiscale Modeling offer a very comprehensive approach to investigate materials at different time scales. Our two case studies utilizing all-atom MD simulations for tyre applications match well with experimental findings: one focuses on polymer blend compatibility which is quantified by the Flory Huggins’s  $\chi$ -parameter, and the other examines air permeability in rubber by measuring the diffusion co-efficient of air molecules,” said **Dr. Sujith Nair**, Vice President, CEAT Ltd.



## Keynote 2

**Ms. Renuka Srinivasan**, Director, Dassault Systemes India focused on need for improved efficiency in product development processes, given the shorter timelines that product development teams face. She also mentioned ModSIM approach which helps in improving efficiency, innovation & collaboration.

The IDIADA presentation by **Mr. Enric Aramburu**, Product Manager, Applus IDIADA, pinpointed the possibility of replacing FE simulations with AI methods to calculate, for example, aerodynamic forces in real time.

“Vehicle simulation in conjunction with high fidelity virtual tire models are used to develop tire specifications. The process enable earlier tire specification prediction balancing between rolling resistance and grip. Method can also be used to diagnose vehicle model sensitivities to improve fidelity,” said **Mr. Jonathan Darab**, Director, GCAPS.



## Keynote 3

“A proof of concept by ESTECO uses real scenarios, simulation, and multi-objective optimization with modeFRONTIER to identify dangerous situations, including edge cases,” said **Mr. Anirudha Joshi**, General Manager, ESTECO, focussing on ADAS.

**Mr. Andreas Kiesel**, Head of IAMT Competence center said that Careful validation of the simplified fatigue tests using image recognition systems leads to improved development.

Cognitive Engineering Evolution (CEE), uses simulation to predict product performance and manufacturing process improvements through AI,” said **Mr. Syam Sunder**, VP, Hexagon, India.

**Prof R Krishnakumar**, IIT Chennai talked about vehicle dynamics and conversion of subjective parameters to objective values. As solutions to this, he said “Digital human body models” will play instrumental role in coming future.



## Panel Discussion

**Dr. Tapan Sahoo** kicked off the panel discussion on accelerating digital transformation through simulation moderated by ETAuto's Consulting Editor **Sumantra Bibhuti Barooah**.

**Mr. Vishwanath Rao**, MD, Altair India focused on electrification and sustainability,” said.

**Dr. Nagesh Poojary**, Business Advisor, IPG Automotive said that India's progress in ADAS is closely tied to legislation and safety regulations.

**Mr. Prashant Rao**, Director, MathWorks India discussed about Model-based system architecture.

**Mr. Renji Issac**, Sr. VP, CEAT Ltd. talked about simulation, statistical tools & AI models for first time right products.

**Mr. Mandip Tack**, MD, IDIADA India talked about testing in a virtual world using driving simulators.



# Media Coverage



Get App

## Megatrends in the evolution of society shape mobility and auto industry

In his Inaugural address at SAE India's 'Road to Virtual World' conference 2023, Tapan Sahoo, Executive Director - Maruti Suzuki India Ltd. and Chairman - SAENIS, discussed the evolution of the mobility world and the societal megatrends of climate change and environmental degradation.



Get App

## Road to virtual world: Accelerating digital transformation through simulation

The dependence on virtual validation and simulation is going to be extremely critical for automotive development, especially for edge cases.

# MOBILITY ENGINEERING

## INTERNATIONAL AUTOMOTIVE CAE CONFERENCE – ROAD TO VIRTUAL WORLD



- Attended by 280+ delegates from 70+ organizations
- 12 Keynote sessions by experts across globe
- Panel discussion by industry stalwarts
- Exposition on innovative technologies and solutions
- Coverage by top media houses



The Conference was inaugurated by Dr. Tapan Sahoo (Chairman - SAENIS and Executive Director Maruti Suzuki) along with other dignitaries from industry and academia.

In his Inaugural address, Dr. Sahoo explained the evolution of the mobility world and megatrends shaping society and mobility. He mentioned key societal Megatrends which includes Climate change/Environmental Degradation, Demographic Trends, Rapid Urbanization, Digital Technologies and Rising middle class. He then addressed the factors that drive the global EV market, increasing consumerism and India's need for 'Safe Mobility'. He concluded by discussing advantages of Simulation over physical prototyping and how simulation is the key to addressing future development challenges.



Few highlights of the conferences were:

- First of its kind CAE conference in India



Home > Features > RVW Conference Highlights

## RVW Conference Highlights The Importance Of Simulation Testing

Abhijeet Singh  
12 Oct 2023 | 07:04 PM | 3 Min Read

Deliberations from across the industry zeroed in that virtual simulations can cope with the fast-paced development of vehicles, components and materials.



Whether designing a tiny spring bush in the suspension of an electric city runabout or plotting the trajectory of a satellite launch vehicle, simulation testing has become the bedrock of technology development. This message emerged from the SAE India-Northern India Section organised the International Automotive CAE Conference – Road to Virtual World', which focused on accelerating digital transformation through simulation. With a versatile set of speakers from across the mobility industry, the message is clear: extensive utilisation of simulation development is fast-tracking the technology enhancement across every segment.

Simulation Testing In The Mobility Industry  
The Government introduces many schemes to incentivise

# Some Glimpses





# Some Glimpses



**ROAD TO VIRTUAL WORLD**  
Transformation Through Simulation



# RVW Provided Great Opportunities To:



## Sponsors & Exhibitors



- Brand Visibility
- Networking & Partnerships
- Business Opportunities
- Approachability
- Technology demonstration
- Product or Service Promotion
- Build Credibility in Customers
- Direct Feedback from Audience



## Speakers



- Share research/learning with mass
- Visibility & Branding
- Networking & Business Opportunities
- Recognition
- Connect with Young Engineers
- Promotion of Research & Technology



## Delegates



- Awareness on latest research & trends
- Exposure to new technologies
- Listen to top industry leaders
- Opportunity to meet researchers & leaders

- Networking & Business Opportunities
- Develop Leadership Skills
- Inspiration





**JOURNEY CONTINUES**

See you at RVW 2024